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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/714,200

Filing Date: November 14, 2003

Appellant(s): IHDE, STEFAN

Robert C. Haldiman
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 06/04/2008 appealing from the Office action mailed 08/15/2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner. 35 U.S.C. 112, second paragraph for claims 53 and 73.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,238,214	Robinson	05-2001
5,965,006	Baege et al.	10-1999

6,516,228	Berrang et al.	02-2003
WO/2001/24737	Albrektsson	12-2001
6,186,791	Karmaker et al.	02-2001
4,538,304	Grafelmann	09-1985
4,344,757	Streel	08-1982

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 58-60, 69-71 and 75-78 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In regard to claim 58, it is not entirely clear from the specification what the claimed "inner aspect" and "peripheral aspect" are. Similarly, in claim 75, Examiner cannot distinguish from the specification what the claimed "leading portion" and "trailing portion" of the

base are. As to claim 77, it is not apparent what the claimed "waist" portion is from the specification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 42-43, 46-47, 51, 53, 55, 57-59, 67-71, 75-78 are rejected under 35 U.S.C. 102(b) as being anticipated by Robinson (US 6,238,214).

In regard to claims 42 and 58, Robinson discloses an osteal implant comprising a shaft (i.e. 11,23) having a longitudinal axis and having a first end and a second end at opposing ends of said longitudinal axis (i.e. see Figures 11 and 13); said first end having a mount for a device (i.e. 17) to be implanted (i.e. see Figures 11 and 17); said second end being terminally attached to a top surface of a base (i.e. 30, Figure 13); said base being substantially planar, rectilinear and orthogonal to said longitudinal axis in at least two non-parallel directions as shown by the embodiments of the base in Figures 12 and 15; at least one of a top surface or a bottom surface of said base having a first height (i.e. 32) at a first radial distance from said longitudinal axis and a second height (i.e. 33) at a second radial distance from said longitudinal axis; said first height being maintained through at least two directions radial to said longitudinal axis (i.e. in directions toward each edge of the base); said second height being, maintained through at least two directions radial to said longitudinal axis (i.e. the height of surface element 33 extends along the

periphery of the base); and both of said top surface and said bottom surface being disposed for osseointegration (i.e. bone growth surfaces on the base are shown in Figures 12 and 15).

As to claims 43 and 67-68, the first height 33 is representative of a mound with a circular circumference as demonstrated in Figures 13 and 15, and is therefore maintained through an arc that can be 180° between said at least two directions radial to said longitudinal axis.

As to claim 46, the second height has a sharp edge along its periphery as shown for example in Figures 13-17.

As to claim 47, the base, as shown for example in Figure 13, has a third height located along the incline portion of the center mound, intermediate the top of which defines said first height (32), and the bottom of which defines said second height (33). Consequently, said third height has a different radial distance from said longitudinal axis than either said first height or said second height. In regard to claim 51, said base as shown in Figures 12 and 15 has an outer perimeter which includes at least three substantially straight edges.

As to claim 53, as best understood by Examiner, Figure 15 shows a series of curvilinear ridges on the surface of the base at its second height located along its periphery. In regard to claim 55, said second height (33) is at a marginal zone of said base located along a height of a periphery of said base (column 7, line 45).

As to claim 57, said marginal zone comprises reentrant angles at each bone-growth region such as those shown on the surface of the base in Figure 15.

As to claims 59 and 70, the radial width of the peripheral aspect of the base varies since the base is rectangular per Figure 15 of Robinson, and wherein the peripheral width increases

radially along the longer side of the base, and decreases radially along the shorter side of the base.

As to claim 69, the first thickness (i.e. 32) is greater than the second thickness (35) as shown in Figure 13. In regard to claim 71, as best understood by Examiner, since the inner aspect includes the thickened region 32 and its corresponding mound-shaped incline portion, its radial width varies based on the position of said incline. Furthermore, in claims 75-76, the base as shown in Figure 13 has a leading portion (i.e. left side of mound portion 32) and a trailing portion (i.e. right side of mound portion 32), and wherein variations of the width of said boundary are Symmetrical around the base.

As to claim 77, the narrower width of said boundary of the inner portion shown in Figure 13 comprises a waist on said trailing portion of said base located at the edge of the mound shaped region.

As to claim 78, as best understood by Examiner, the peripheral portion of the base has a leading edge which connects to the inner aspect of the base, and of which is thinner than said inner aspect as shown in Figure 13.

4. Claim 72 is rejected under 35 U.S.C. 102(b) as being anticipated by Albrektsson et al. (WO 01/24737).

Albrektsson discloses an osteal implant comprising a shaft (i.e. 3) that is substantially orthogonal to a substantially planar base at one end (i.e. 20), and wherein said shaft and said base comprise a substantially T-shaped implant end portion (see Figure 3), and wherein at least one surface (i.e. 21) of said base having a plurality of crests alternating with a plurality of grooves (i.e. 22), both

said crests and said grooves being curvilinear around said shaft through substantially 180° (see Figure 5).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been Obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 44-45, 48, 54, and 56 are rejected under 35 U.S.C..103(a) as being unpatentable over Robinson in view of Berrang et al. (US 6,516,228).

Robinson discloses an osteal implant as previously described in detail above, but fails to show the heights alternate periodically or comprise a spiral. Berrang, however, teaches an osteal implant which can have one or more ridges and grooves that alternate and can be spirally disposed on the base (column 3, lines 41-48). Therefore, it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to make the heights alternate periodically or comprise a spiral in order to promote osseointegration with bone of the patient as taught by Berrang.

7. Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Robinson in view of Baege et al. (US 5,965,006). Robinson discloses an osteal implant as previously described in detail above, but fails to show at least one of said portions comprises a bowl-like depression. Baege, however, teaches a prosthetic device for implanting in bone which has a portion that

comprises bowl-like depressions (Figure 1a). Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to make at least one of the portions of the implant have bowl-like depressions substantially vertical on a base oriented opposite from the direction of insertion in order to provide a sufficient anchoring depth for ingrowing bone matter during osseointegration as taught by Baege.

8. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Robinson.

Robinson discloses the osteal implant as previously described but fails to disclose the claimed range of heights. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the heights vary in a range from about 0.05 mm to about 0.25 mm since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

In re Aller, 105 USPQ 233.

9. Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Robinson in view of Karmaker (US 6,186,791).

Robinson discloses an osteal implant as previously described, but fails to show the first and second heights comprise barbs oriented to resist extraction of the implant. Karmaker, however, teaches a dental post implant comprised of barbs (Figure 1). Therefore, it would have been obvious to one having ordinary skill in the art to add barbs to the implant portions in order to aid in the retention of the implant in the bone as taught by Karmaker.

10. Claim 60 is rejected under 35 U.S.C. 103(a) as being unpatentable over Robinson in view of Grafelmann (US 4,538,304). Robinson discloses an osteal implant as previously described but fails to show the width of the peripheral portion or the thickness varies. Grafelmann, however,

teaches a prosthetic device for implanting in bone which has a base with a first height (top of Figures 2,4) and a second shorter height that is along a portion of a periphery of said base (bottom of Figures 2,4), wherein the thickness of the base varies. Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to make the thickness of the base vary in order to promote a better retention of the device within the bone and the surrounding body tissue as taught by Grafelmann.

11. Claims 72-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Streel (US 4,334,757) in view of Berrang (US 6,516,228).
12. In regard to claim 72, Streel discloses an osteal implant comprising a shaft (2), said shaft being substantially orthogonal to a substantially planar base at one end (see Figure 1), and wherein said shaft and said base comprise a substantially T-shaped implant end portion (see Figure 1). Streel fails to show at least one surface of said base having a plurality of crests alternating with a plurality of grooves, both said crests and said grooves being curvilinear around said shaft through substantially 180°. However, Berrang teaches an osteal implant which can have one or more ridges and grooves that alternate and can be spirally disposed (column 3, lines 41-48). Therefore, it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to include said plurality of alternating curvilinear crests and groove in order to promote osseointegration with bone of the patient as taught by Berrang.
As to claim 73, Streel additionally shows the implant comprises at least two through holes in said base, said through holes defining a bar, said bar running substantially through a center of said base, said bar being attached to said shaft, and said holes defining a base peripheral area (see especially Figure 2).

In regard to claim 74, the peripheral area shown in Figure 2 is substantially rectilinear over about one-half of said base.

1. (10) Response to Argument

On page 12, Part VII, A of the Appeal Brief:

Appellant argues that the reference by Robinson (6,238,214) fails to teach "said first end having a mount for a device to be implanted; said second end being attached to a top surface of a base," thus that the tooth end and base end be opposite ends of the shaft, and that the planer, perpendicular base be opposite the tooth end.

The Examiner respectfully disagrees because the tooth end as the Appellant argues was never presented in any of the claims. The Examiner believes that the Appellant's interpretation of claims is too narrow than they are presented in the claims. Further, the Examiner pointed out that Robinson teaches a base (numeral 30, fig. 13) and a shaft (numeral 11, figure 13) and the base being on the opposite end of the shaft from a device to be implanted (numeral 17, figures 11 and 17).

On Page 13, lines 1-3 of the Appeal Brief:

Appellant argues that Robinson's "guided tissue regeneration plate 12" is not a "base." The Examiner respectfully disagrees. The Examiner notes that an Appellant is entitled to be his or her own lexicographer to define elements of the invention. However, no special definition of the term "base" is present in the specification. For the purpose of examination, so long as a prior art reference structurally meets the claimed element, then said reference reads on the claim. In this case, Examiner notes that according to dictionary.com, a base is "the bottom support of anything," or alternatively "that on which a thing stands or rests." Clearly, the "plate" (30) of

Robinson acts as the bottom support for shaft (11), or in other words, the plate is that on which the shaft stands or rests. Furthermore, the plate of Robinson is also defined by the same structural integrity that the claims set forth - notably said plate is shown as substantially planar, rectilinear, and orthogonal to the longitudinal axis of the shaft in at least two non-parallel directions. It is therefore apparent that said guided tissue regeneration plate reads on the claimed base of the present invention.

On page 15, Part VII, B rejection of claim 72 under 35 USC 102(b) as being anticipated by Albrektsson et al. (WO 01/24737.

Appellant argues that Albrektsson does not describe or suggest a shaft and a base including a T-shaped implant end portion. The Examiner respectfully disagrees. Albrektsson clearly teaches a shaft (numeral 3, figure 3) and a base (numeral 20) including a T-shaped implant end portion.

On pages 16-17, Part VII, C, D, E, F and G of the Appeal Brief

Appellant did not point out supposed error in other prior arts (Berrang et al., Baege et al., Karmaker, Grafelmann) but relies on the arguments made in Part VII, A. Therefore, the Examiner believes that these prior art rejections are still valid.

On Pages 17-18, Part VII, H of the Appeal Brief: Rejection of claims 72-74 under 35 USC 103(a) as being unpatentable over Strel (4,344,757) in view of Berrang (6,516,228).

Appellant argues that Berrang teaches a cochlear implant and never describes or suggests an osteal implant which includes curvilinear crests and grooves in order to promote osseointegration with bone. However, Berrang teaches that such surface features ossointegrate with the bone (abstract lines 8-9). In short, the problem that Applicant is trying to solve is being solved by Berrang. Therefore, the examiner believes that Strel and Berrang are analogous art. One of

ordinary skill in the art would have been motivated to use a known method of improving osseointegration of implants to improve the osseointegration of Strel's implant.

On Pages 18-19, Part VII, I of the Appeal Brief: Rejection of claims 58-60, 69-71 and 75-78 under 35 USC 112, first paragraph:

Appellant argues that "an inner aspect" and "a peripheral aspect" structurally recited in claim 58 are perfectly clear from the specification. Also the "leading portion" and "trailing portion" as recited in claim 75 and the "waist" as recited in claim 77. The Examiner respectfully disagrees. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In regard to claim 58, it is not clear from the specification what the claimed "inner aspect" and "peripheral aspect" are and these phrases are not commonly used in the art. Appellant argues that specification at page 9, lines 10-21 recites different inner and peripheral aspects of the device. However, this section discusses depressions made in the base of the lateral implant. It is unclear how the claimed inner aspect and peripheral aspect are related to the depressions in the base of the lateral implant. As previously stated by the examiner, there is no clear antecedent basis for the "inner aspect" and "peripheral aspect" in the specification or in the drawings.

Similarly, in claim 75, Examiner cannot distinguish from the specification what the claimed "leading portion" and "trailing portion" of the base arc. Appellant argues that "leading portion" and "trailing portion" are demarcated with arrows in figures 1A and 1B, figures 3, 5 and 7 and specification page 8, line 20. However, line 20 of page 8 states that "A' indicates the direction."

There is nothing in the drawings or specification that one of ordinary skill in the art would understand what the "leading portion" and "trailing portion" are.

As to claim 77, it is not apparent what the claimed "waist" portion is from the specification. Appellant argues that "waist" clearly depicted at figure 9. However, there is no "waist" portion indicated on figure 9 nor does figure 9 have a portion that one of ordinary skill in the art would recognize as a "waist" portion.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

Conclusion

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Yogesh Patel/

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